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The Effects of Logistical Factors On The Union Pursuit of the Confederate Army During the Final Phase of the Gettysburg Campaign

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ABSTRACT

For ten days after the Battle of Gettysburg, the Army of Northern Virginia, under command of Robert E. Lee, remained trapped on the Union side of the flooded Potomac River. During that time, the Army of the Potomac, commanded by George G. Meade, pursued the Confederate forces as they retreated across Pennsylvania and Maryland, attempting but never quite succeeding in bringing about another general engagement. This paper examines the extent to which logistical factors on the Union side of the line hampered the effort to destroy the Confederate army. Specifically, it will seek to show that the resource limitations experienced by the Union army were a decisive factor in their inability to destroy Lee's forces while they remained trapped on Union soil.

INTRODUCTION

In the ten days that followed the Battle of Gettysburg, the Army of the Potomac was seemingly presented with an opportunity to end the war by destroying the Army of Northern Virginia while it remained trapped by the flooded Potomac River. For a complex array of reasons, this did not occur, much to the chagrin of northern political leaders. The fact that the Confederate forces were able to escape has been a much debated point for the last 130 years, one that Union commander George Meade spent much of the remainder of his life trying to explain.

Over the years, reasons for the Confederate army's relatively unmolested escape have been explored in some detail. This includes examination of such factors as the relative strength of the two armies, loss of critical corps and division commanders on the Union side, judgmental errors on the part of senior leadership, and the brilliance of Lee. However, one area of endeavor has remained largely unexplored as it relates to Union movements and actions after Gettysburg -- the field of logistics. This paper will outline the effect that logistical support (or lack thereof) had on the decisions of Union leadership and on the ability of the army to carry out the decisions made by those same leaders during the period July 4-14, 1863. Specifically, it will seek to prove that the resource limitations experienced by Meade and his army were decisive in the final phase of the Gettysburg Campaign that ended when the Army of Northern Virginia crossed the Potomac on the night of July 13-14.

UNION LOGISTICS SUPPORT IN 1863

MILITARY DEPARTMENTS

Any discussion on the effects of logistics immediately following the Battle of Gettysburg must necessarily begin with a basic understanding of the Army of the Potomac's logistical support system. By 1863, this support was divided among four military supply departments, or bureaus, that reported directly to the Secretary of War. The Quartermaster General, Brigadier General Montgomery C. Meigs, was responsible for clothing and equipment, animals and forage, the transportation network, and housing. Rations were the responsibility of the Commissary General, Colonel Joseph P. Taylor. Weapons, ammunition and associated equipment fell under the Chief of Ordnance, Brigadier General James W. Ripley. And medical care and supplies were the responsibility of the Surgeon General, Brigadier General William A. Hammond.¹

For the most part, these departments operated independently, often without effective coordination.² Each was charged with the procurement and distribution of their respective commodities. However, the Quartermaster General provided transportation for each of the departments, often through its "quasi-independent adjunct,"

¹ James A. Huston, *The Sinews of War: Army Logistics 1775-1953* (Washington, 1988, hereafter cited as *Sinews of War*), pp. 168-69; Charles R. Shrader, "Field Logistics in the Civil War," published in *The U.S. Army War College Guide to the Battle of Antietam*, edited by Jay Luvaas and Harold W. Nelson (New York, 1987), pp. 257-58.

² Shrader, "Field Logistics in the Civil War," p. 258.

the United Military Railroads.³

DEPOT SYSTEM

Distribution of supplies and equipment to field armies was accomplished through a series of depots run by each of the departments. By 1863, a fairly sophisticated system had evolved that included general, advance and temporary depot facilities.⁴ These were usually commanded by a captain who was responsible for a huge amount of resources in spite of his modest rank. Two notable exceptions to this trend were the Washington Quartermaster Depot and the Washington Arsenal, each commanded by a colonel.⁵

Throughout the war, the larger general depots remained under the control of the various bureau chiefs, such as the Quartermaster General. Their organization was often complex as evidenced by the twelve branches within the Washington Quartermaster Depot.⁶ The smaller, mobile advance and field depots that sprang up often were established by and under the control of the commander of the geographic military department. Although field armies normally drew their supplies from the advance and field depots, they would at times draw directly from the general depot if circumstances

³ Huston, *Sinews of War*, p. 169; Francis A. Lord, *They Fought for the Union* (Westport, CT, 1960), p. 117.

⁴ Erna Risch, *Quartermaster Support of the Army, 1775-1939* (Washington, 1988), p. 427.

⁵ Shrader, "Field Logistics in the Civil War," p. 259.

⁶ Huston, *Sinews of War*, p. 175.

warranted.⁷

FIELD SUPPORT ORGANIZATION

By present day standards, the logistics support organization within the Army of the Potomac was rather small. The Chief Quartermaster for the army in 1863 was Brigadier General Rufus Ingalls, a highly competent officer who, among his other accomplishments, developed a system for marking supply wagons by unit and contents to avoid confusion and streamline overall field support.⁸

Below army level, the logistics organizational structure followed that of the army itself. Each corps was authorized a lieutenant colonel as chief quartermaster and another as chief commissary officer. Divisions normally had a quartermaster, commissary and ordnance officer assigned to the commander's staff, although these positions were not formally authorized by Congress until 1864. Brigades were authorized a captain to fill the role of quartermaster and another for subsistence.⁹

The bulk of the logistics support work was performed at the regimental level. Each regiment, whether infantry, cavalry or artillery, regular or volunteer, was authorized a regimental quartermaster/commissary officer, usually a lieutenant. Most also had quartermaster and commissary sergeants, an ordnance sergeant,

⁷ Risch, *Quartermaster Support of the Army*, p. 427.

⁸ *Ibid*, p. 424.

⁹ *Ibid*. pp. 390-91; Shrader, "Field Logistics in the Civil War," pp. 260-61.

a hospital steward, two or three surgeons, and assistants. Responsibilities among the regimental logistics staff included the requisition and issue of all equipment, tents, arms, ammunition, rations, and clothing. The regimental quartermaster also managed the regimental supply and ammunition trains to include animals, forage and wagons.¹⁰

THE INDIVIDUAL SOLDIER

The normal field load for a Union infantryman was about 45 pounds. This included a rifle or musket weighing about 14 pounds, short rations (also referred to as marching rations) for anywhere from two to eight days and weighing up to 12 pounds, 60 rounds of ammunition weighing about 6 pounds, and various other equipment that might include a blanket, shelter, mess gear, and personal items.¹¹

Supply discipline was almost universally bad. When the army was on the move, troops would often discard their unneeded equipment along the road as they marched, sometimes arriving at the battle sight with little more than a weapon, ammunition and a few days' rations.¹² In fact, they often arrived with no rations at all, preferring to lighten their load as much as possible by consuming most if not all of their issue before taking up the

¹⁰ Huston, *Sinews of War*, p. 174; Shrader, "Field Logistics in the Civil War," pp. 260-61.

¹¹ Shrader, "Field Logistics in the Civil War," pp. 262-63.

¹² *Ibid.*, p. 263.

march.¹³ These practices were especially prevalent on long, forced marches during hot summer days such as occurred in early July, 1863.

RAILROADS

The Civil War saw the first large scale use of railroads in wartime.¹⁴ This new mode of transportation was a critical factor in the outcome of numerous battles and campaigns. Using their extensive rail network, Union forces could move large quantities of arms and supplies from the general depots to advanced railheads where they would be transferred to wagon trains for transport to the battlefield.

The Director and General Manager of Military Railroads, Brigadier General David C. McCallum, reported directly to Secretary of War Stanton on most matters. However, all departmental requisitions for locomotives, cars and equipment had to be approved by Quartermaster General Meigs. Likewise, McCallum also submitted operational reports through Meigs.¹⁵

In addition, there was an autonomous Railroad Construction Corps headed by Brigadier General Herman Haupt. Under his direction, the corps grew into an effective workforce of several

¹³ Bell Irvin Wiley, *The Life of Billy Yank* (Indianapolis, 1952), pp. 66, 230; Lord, *They Fought for the Union*, pp. 118-21.

¹⁴ Edward Hagerman, *The American Civil War and the Origins of Modern Warfare* (Bloomington, IN, 1988, hereafter cited as *Origins of Modern Warfare*), p. xii.

¹⁵ Risch, *Quartermaster Support of the Army*, pp. 396-97.

thousand.¹⁶ Haupt's organizational skills had been tested many times by the middle of 1863 and proved to be a decisive factor on more than one occasion.

WAGON TRAINS

Advanced modes of transportation such as railroads and steamships greatly increased the mobility of the army. However, field armies remained tied to the baggage trains that accompanied them as they moved, carrying additional rations, equipment and ammunition.¹⁷ For example, each soldier normally carried 60 rounds of ammunition. But the most common issue was 200 rounds per man, the additional supply being carried in the brigade or division (40 rounds) and corps (100 rounds) ordnance trains.¹⁸ Additionally, trains were employed to transport much needed replenishment arms and supplies from makeshift depots at railheads and wharves to the army in the field.¹⁹ In this mode, the wagon trains would play a critical role for the Army of the Potomac at Gettysburg.

The trains were highly dependent upon a large supply of draft animals procured by the Quartermaster General's Department (as were riding animals).²⁰ Wagons were normally drawn by a four horse team capable of hauling about 2,800 pounds or a six mule team able to

¹⁶ *Ibid.* p. 398.

¹⁷ *Ibid.* p. 420.

¹⁸ Shrader, "Field Logistics in the Civil War," p. 264.

¹⁹ Risch, *Quartermaster Support of the Army*, p. 420.

²⁰ Shrader, "Field Logistics in the Civil War," p. 269.

haul about 4,000 pounds including their own forage on good roads. But the roads were seldom good. The same mule team was only capable of 3000-3500 pounds on solid dirt roads and from 1800 to 2500 pounds in rough country. The average speed was about two and a half miles per hour on good roads and dropped from there as road conditions deteriorated.²¹

Wagon requirements varied constantly throughout the war. Meigs and others advocated use of the Napoleonic standard of 12 wagons per 1000 men. But the low population density in North America drove much higher wagon requirements than for European armies which could gather more of their support from the land. In practice, usage never approached the Napoleonic standard, reaching as high as 45 wagons per 1,000 men during the Peninsula Campaign of 1862.²² By the time of the Gettysburg Campaign, the Army of the Potomac was utilizing something in excess of 30 wagons per 1,000 men totalling more than 4,000 heavy wagons.²³ In addition, the army had a total of about 1,100 ambulances at Gettysburg.²⁴

²¹ Risch, *Quartermaster Support of the Army*, pp. 420-23; Hagerman, *Origins of Modern Warfare*, p. 45; O. Espanet, *Notes on the Supply of an Army During Active Operations* (Kansas City, 1899, hereafter cited as *Notes on Supply*), p. 217.

²² Hagerman, *Origins of Modern Warfare*, p. 45; Espanet, *Notes on Supply*, pp. 216-17.

²³ *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies* (Washington, 1880-1901, hereafter cited as *OR*, all references are from Series I), Vol. XXVII, pt. 1, p. 222; Espanet, *Notes on Supply*, p. 217; Hagerman, *Origins of Modern Warfare*, p. 138. The wagon standard was cut to 21 per 1,000 men by reforms announced in August, 1863.

²⁴ *OR*, XXVII, pt. 3, pp. 521, 523.

SITUATION AT GETTYSBURG, JULY 4, 1863

The bulk of the fighting at Gettysburg ended on July 3. With it, ended the bloodiest battle of the war, in fact the bloodiest battle in American history. Both armies had been devastated, but the situation was most desperate on the Confederate side of the line. Deep within enemy territory, far from his logistical base, and dangerously low on supplies, Lee had but one option -- retreat.

For the next ten days Meade and his forces were to pursue the Army of Northern Virginia across Pennsylvania and Maryland, never quite succeeding in bringing on a general engagement that would destroy the Confederate army. To the extent that logistics played a role in this process, it is necessary to understand the general situation within the Union ranks at the end of the battle.

GENERAL CONDITION AND FIGHTING STRENGTH

By all accounts, the Army of the Potomac was both elated with their victory and exhausted by the effort. The army had covered large amounts of territory before the battle in pursuing Lee through Maryland and into Pennsylvania, followed by three days of heavy combat. Losses of men, animals, equipment, arms and ammunition were enormous.

In his dispatch to Washington on the night of July 3rd, Meade noted both the considerable losses suffered and the fact that the army was still "in fine spirits."²⁵ In a similar dispatch at noon the next day, he addressed the question of the army's condition a

²⁵ OR, XXVII, pt. 1, p. 75.

bit more directly. "The enemy has abandoned large numbers of his killed and wounded on the field. I shall require some time to get up supplies, ammunition, &c., rest the army, worn out by long marches and three days' hard fighting."²⁶ Another dispatch on the 4th by Meade's chief of staff, Major General Butterfield, noted, "The army is resting from its recent severe conflict and rapid marches; getting up supplies and ammunition today."²⁷

Subsequent historical analyses echo this assessment of a badly fatigued force in need of immediate resupply. Bruce Catton described it as a "shot-to-pieces army."²⁸ Edwin Coddington stated, "The Union soldiers, after long forced marches and three days fierce battle, sagged from fatigue and desperately needed rest and food."²⁹ And Meade biographer Freeman Cleaves described the situation as follows:

The immediate and most pressing task was to supply and refit a battered army which obviously needed rest after several days of marching and fighting. The field was roughly strewn with dead and wounded, the bodies of horses, arms of all description, blasted chunks of metal, wagon wheels, pieces of clothing, shoes, cartridge belts, mess gear, and other items to be salvaged or scrapped. Ordnance officers gathered up the cartridge boxes of the dead and wounded and carefully sorted weapons. Barefoot soldiers, some weak from hunger, scouted the field for shoes and scarce rations.³⁰

²⁶ *Ibid.*, pt. 1, p. 78.

²⁷ *Ibid.*, pt. 3, p. 515.

²⁸ Bruce Catton, *Glory Road* (Garden City, NY, 1952), p. 327.

²⁹ Edwin B. Coddington, *The Gettysburg Campaign* (New York, 1968), p. 535.

³⁰ Freeman Cleaves, *Meade of Gettysburg* (Norman, OK, 1960), pp. 172-73.

Clearly the Army of the Potomac was in desperate need of rest and resupply. But there was a major constraint to this effort in that the Union supply depot was in Westminster, some 25 miles away. Early in the battle, Meade had ordered his trains to Westminster both to remove any impediment to troop movements and to position them to support the army if Lee were to move on Washington. This is born out by his dispatch to Halleck on the 2nd.

Expecting a battle, I ordered all my trains to the rear. If not attacked, and I can get any positive information of the position of the enemy which will justify me in so doing, I shall attack. If I find it hazardous to do so, or am satisfied the enemy is endeavoring to move to my rear and interpose between me and Washington, I shall fall back to my supplies at Westminster.³¹

This is also supported by the annual report of Meade's Chief Quartermaster, Rufus Ingalls. Referring to July 1st, Ingalls wrote:

The wagon trains and all impedimenta had been assembled at Westminster, on the pike and railroad leading to Baltimore, at a distance of about 25 miles in rear of the army. No baggage was allowed in front. Officers and men went forward without tents and only with a short supply of food. A portion only of the ammunition wagons and ambulances was brought up to the immediate rear of our lines. This arrangement, which is always made in this army on the eve of battle and marches in presence of the enemy, enables experienced and active officers to supply their commands without risking the loss of trains or obstructing roads over which the columns march. Empty wagons can be sent to the rear, and loaded ones or pack trains, brought up during the night or at such times and places as will not interfere with the movement of troops.³²

Ingalls further noted in a dispatch to Chief Quartermaster

³¹ OR, XXVII, pt. 1, p. 72.

³² *Ibid.*, pt. 1, pp. 221-22.

Meigs on the evening of the 4th, "We marched and fought this battle without baggage or wagons."³³

This movement of trains to Westminster was accomplished for sound operational reasons, and probably aided in the victory on the battlefield by keeping the rear areas open for troop movements and permitting the army to mass faster than usual. As will be discussed later, Westminster provided the nearest serviceable railhead. But its 25-mile distance from the battlefield made it difficult to bring up supplies during the battle and left the Army of the Potomac in dire need of resupply. As Ingalls noted in a dispatch as early as the morning of the 3rd, "We have supplies at Westminster, which must come up tomorrow if we remain here."³⁴ The fact that the army's trains were 25 miles away, a full day's travel by wagon under the best of conditions, would have significant impact upon its ability to pursue Lee.

MEDICAL CARE

Care of dead and wounded created a huge burden on the Union army. Official records show a total of 3,155 killed and 14,529 wounded on the Union side alone.³⁵ In addition, the Confederates left behind many of their dead to be buried and 6,802 wounded which they were not able to transport with them during their retreat.³⁶

³³ *Ibid.*, pt. 3, p. 520.

³⁴ *Ibid.*, pt. 3, p. 503.

³⁵ *Ibid.*, pt. 1, p. 187.

³⁶ *Ibid.*, pt. 1, p. 198.

While a few surgeons and orderlies were left behind to provide for their care, they were not nearly enough.³⁷ And so the burden on already overextended Union medical resources was heightened still further.

The number of dead and wounded is obviously important in that the ranks of the Army of the Potomac were severely depleted with five of the seven infantry corps suffering in excess of 2,000 casualties.³⁸ And while it can be argued that it is not important in a purely *logistical* sense as it relates to the ability of the army to pursue the Confederates, it did have a cumulative effect on their efforts in the days following the battle.

Burial details had to be formed, and that took time. Joshua Lawrence Chamberlain, commander of the now famous 20th Maine, described his unit's actions on the 4th of July.

... we returned to Little Round Top, where we buried our dead in the place where we had laid them during the fight, marking each grave by a headboard of ammunition boxes, with each soldier's name cut upon it. We also buried 50 of the enemy's dead in front of our position of July 2. We then looked after our wounded, whom I had taken the responsibility of putting into the houses of citizens in the vicinity of Little Round Top, and on the morning of the 5th, took up our march on the Emmitsburg road.³⁹

More importantly, rail lines and roads used to bring much needed supplies and ammunition were clogged by ambulances returning wounded to Washington, Baltimore, and Harrisburg, thus slowing the

³⁷ *Ibid.*, pt. 1, pp. 24-25.

³⁸ *Ibid.*, pt. 1, p. 187.

³⁹ *Ibid.*, pt. 1, p. 626.

movement of materials critical to the pursuit of the Confederate army. Quartermaster General Meigs reported that the Army of the Potomac had approximately 1,100 ambulances at Gettysburg.⁴⁰ If just half of these were on the road to Westminster at a given time, that equates to one ambulance for every 240 feet of roadway for the entire 25 miles. Likewise, the rail system was clogged with movement of wounded. Medical examiners dispatched from Washington to Gettysburg on the 7th and 10th both noted significant delays on the rail system in reaching their destination.⁴¹ And that was days after the bulk of the army had departed Gettysburg and full rail service restored. So while the individual effects of the medical effort may not have slowed Union resupply directly, there was, nonetheless, a compounding effect that served to further complicate an already difficult situation.

ARMS AND AMMUNITION

The expenditure of arms and ammunition during the three days of the battle had been enormous. And these losses had to be made up before the army could pursue the enemy. Nowhere was this more apparent than with the artillery.

Official records report 362 artillery pieces available (including reserves) with the Army of the Potomac on June 30, the day before the battle started. After the battle, the army's Chief of the Artillery, Brigadier General Henry J. Hunt, put Union losses

⁴⁰ *Ibid.*, pt. 3, pp. 521, 523.

⁴¹ *Ibid.*, pt. 1, pp. 24-26.

at 320 guns for the three days fighting.⁴² Undoubtedly, a few of the pieces reported as losses were repaired and others replaced from other sources during the battle. But even allowing for these, it is clear that Hunt had lost roughly 75 percent of his artillery by the time the fighting ended on the 3rd, forcing him to consolidate some of his best batteries.⁴³

These estimates are further supported by Hunt's testimony two years later in front of the Joint Congressional Committee on the Conduct of the War. Referring to the Confederate cannonade on the afternoon of the 3rd, he stated, "The enemy opened upon us with some 115 or 120 guns, to which we could bring but 70 to reply effectively."⁴⁴

The Union had a few other serviceable guns that could not be brought to bear on the enemy.⁴⁵ But considering the duration and magnitude of the Confederate barrage, Hunt must have lost many more guns on the afternoon of the 3rd. In his congressional testimony, he reported the Confederate cannonade as "very destructive to our material."⁴⁶ And a II Corps officer described the barrage as "almost entirely disabling our batteries, killing & wounding over

⁴² *Ibid.*, pt. 1, pp. 151-54, 241.

⁴³ Catton, *Glory Road*, p. 323.

⁴⁴ *Report of the Joint Committee on the Conduct of the War at the Second Session, Thirty-Eighth Congress* (Washington, 1865, hereafter cited as *CCW Report*, all references are from Volume I), p. 451.

⁴⁵ *OR*, XXVII, pt. 1, p. 239.

⁴⁶ *CCW Report*, p. 451.

half the officers & men [of the artillery] & silencing most of the guns."⁴⁷

The point is that the numbers are consistent. Hunt had only about 70 artillery pieces prior to the Confederate cannonade plus some small number that could not be brought to bear. Considering the heavy losses inflicted on the afternoon of the 3rd, one can safely conclude that the Union had lost fully three quarters of its available artillery by the time the fighting ended. This is supported by Hunt's final report of 320 losses out of a total of 362 guns before the battle.

Efforts were started immediately to pull guns and crews from nearby military departments with varying degrees of success. Major General Couch sent 79 artillery pieces from Harrisburg while, on the other hand, Major General Wool in New York refused to send two companies of artillerists, citing difficulty in manning the state's nine forts.⁴⁸ Even successful resupply efforts took time to be completed and that impacted on the army's ability to pursue Lee.

Hunt also reported nearly 33,000 rounds of artillery ammunition expended during the battle.⁴⁹ In addition, large quantities had been abandoned on the battlefield.⁵⁰ Some of these losses were made good by an ammunition train that Meade called up

⁴⁷ Henry Livermore Abbott, *Fallen Leaves: The Civil War Letters of Major Henry Livermore Abbott*, edited by Robert Garth Scott (Kent, OH, 1992), p. 186.

⁴⁸ OR, XXVII, pt. 3, pp. 508-10.

⁴⁹ *Ibid.*, pt. 1, p. 241.

⁵⁰ *Ibid.*, pt. 3, p. 600.

from Westminster on the 2nd, issuing just over 19,000 rounds to batteries in the II, III, and XI Corps and the Reserve.⁵¹ And while Hunt's official report concludes that the ammunition supplies were sufficient to "enable the army to fight another battle,"⁵² he curiously ignores the issue of how the army was going to fight this battle with the greatly reduced complement of guns.

Hunt makes another curious statement in his final report relating to the supply of ammunition:

There was for a short time during the battle a fear that the ammunition would give out. This fear was caused by the large and unreasonable demands made by corps commanders who had left their own trains or a portion of them behind, contrary to the orders of the commanding general. In this emergency, the train of the Artillery Reserve, as on so many other occasions, supplied all demands, and proved its great usefulness to the army."⁵³

In fact, the corps commanders had acted exactly according to Meade's directive to send their trains to Westminster, cited earlier. It is natural that Hunt would want to present the artillery in a favorable light in his report. Indeed, there probably was an adequate number of rounds at the front during the battle due to the arrival of the reserve train on the 2nd. But while adequate to meet the army's immediate needs, the supply of artillery ammunition was not plentiful, as evidenced by the concerns of the corps commanders. Why else would Hunt have withdrawn his batteries from the artillery duel that preceded

⁵¹ *Ibid.*, pt. 1, pp. 878-79; *CCW Report*, p. 452.

⁵² *OR*, XXVII, pt. 1, p. 241.

⁵³ *Ibid.*, pt. 1, p. 241.

Pickett's Charge on the 3rd if not to conserve ammunition and guns.

The idea that the Union was beginning to run low on ammunition is supported by Hunt's testimony to the Joint Congressional Committee. Speaking of the Confederate cannonade of the 3rd, Hunt stated, "It was very destructive to our material, but was replied to very effectively by our artillery, until I ordered them, commencing at the cemetery, to slacken their fire and cease it, in order to see what the enemy were going to do, and also to be sure that we retained a sufficient supply of ammunition to meet, what I then expected, an attack."⁵⁴

No consolidated reports exist on the expenditure of small arms ammunition. Nonetheless, some conclusions can be drawn from available information. The extreme shortage that existed in the army in the days immediately following is apparent from the following order issued on the 5th.

The major general commanding enjoins it upon all corps commanders to be very careful in [expending] their ammunition, both artillery and infantry. We are now drawing upon our reserve trains, and it is of the highest importance that no ammunition be exhausted unless there is reason to believe that its use will produce a decided effect upon the enemy.⁵⁵

Obviously, ammunition expenditures varied widely between units. An after action report by Brigadier General John C. Robinson, commander of the Second Division, I Corps, indicates that his unit used up the ammunition they carried into battle on the first day. "When out of ammunition, their boxes were replenished

⁵⁴ CCW Report, p. 451.

⁵⁵ OR, XXVII, pt. 3, p. 542.

from those of their killed and wounded comrades."⁵⁶ Likewise, in describing the actions of the 20th Maine, Colonel Chamberlain also refers to the complete expenditure of all ammunition in his unit's defense of Little Round Top on the 2nd when he states, "My ammunition was soon exhausted."⁵⁷

Conversely, units of VI Corps expended very little of their ammunition during the battle as most of the corps was not heavily engaged. Nonetheless, one study concluded that the total expenditure of small arms by the Army of the Potomac was at least seventy-five rounds per man on the battlefield, or about 5,400,000 total rounds.⁵⁸ If this was the case, then the army was already digging into its reserves before the battle ended on the 3rd and was, therefore, in need of resupply before another major engagement. This conclusion is supported by Meade's statement on the 5th that the army was drawing upon its reserves. And the reserves he had to draw from were not the full complement as the majority of his trains were still at Westminster.

Coincidental with the need for ammunition was the need for replacement rifles and muskets. While the army's exact requirements for additional weapons cannot be determined, it was substantial judging from the number of weapons left on the battlefield. In fact, over 37,000 weapons were collected on the

⁵⁶ *Ibid.*, pt. 1, p. 290.

⁵⁷ *Ibid.*, pt. 1, p. 624.

⁵⁸ Dean S. Thomas, *Ready...Aim...Fire! Small Arms Ammunition in the Battle of Gettysburg* (Biglersville, PA, 1981), p. 13.

battlefield with about 25,000 being shipped to the Washington Arsenal.⁵⁹

HORSES

As already discussed, the artillery was suffering from substantial shortages in guns and ammunition. But they had another more pressing problem, one that was also affecting the cavalry corps and the resupply effort -- finding thousands of horses to replace those lost in the battle. Losses in the artillery alone totalled nearly 900 not counting those used up from sheer overwork and exhaustion.⁶⁰

Beginning on the 4th, Union communication channels were flooded with dispatches outlining the need for thousands of replacement horses. On that day, Ingalls sent the following message to Meigs: "The loss of horses in these severe battles has been great in killed, wounded, and worn down by excessive work. General Meade and staff, for instance, lost 16 in killed yesterday. I think we shall require 2,000 cavalry and 1,500 artillery horses, as soon as possible, to recruit the army."⁶¹ On the following day, he revised his estimate to Meigs. "Five thousand good cavalry horses available today for cavalry use would give great additional results to our already important victory."⁶²

⁵⁹ OR, XXVII, pt. 1, p. 225; Catton, *Glory Road*, p. 325.

⁶⁰ OR, XXVII, pt. 1, p. 241.

⁶¹ *Ibid.*, pt. 3, p. 524.

⁶² *Ibid.*, pt. 3, p. 543.

Judging from these and other dispatches over the next few days, the need for horses was critical to the army's ability to pursue Lee. On the 5th, Cavalry Corps commander Major General Alfred Pleasonton reported that his horses were "fast being used up," and army chief of staff Butterfield reported to Halleck, "The cavalry is broken down. I have issued a proclamation for horses, and will remount as fast as they are brought in."⁶³

The situation in the artillery was no better. As an interim measure, Meade was forced to take horses from the wagon trains and provide them to the artillery. Six-mule teams normally used to pull the wagons were reduced to four to replace the horses sent to the artillery, thereby diminishing the ability of the trains to move supplies.⁶⁴

The shortage of horses was acute and required drastic action. Ingalls had already procured most of the available horses in the region as the Army of the Potomac moved into Pennsylvania in late June. This meant that replacements had to come largely from outside areas and be sent to the army with all possible speed.⁶⁵ On the 6th, Haupt sent a message to the presidents of twelve railroad lines throughout the north requesting their "extraordinary efforts" in moving horses by rail "without delay, day and night."⁶⁶

In the end, replacements were provided from such distant

⁶³ *Ibid.*, pt. 3, pp. 543-45.

⁶⁴ *Ibid.*, pt. 3, p. 542.

⁶⁵ *Ibid.*, pt. 3, p. 543.

⁶⁶ *Ibid.*, pt. 3, p. 568.

places as Chicago, Detroit, Indianapolis and Boston.⁶⁷ By the 6th, horses were beginning to filter into the army in significant numbers. On the 7th, Meigs reported that 4,800 were in transit to the army, now heading for Frederick. Finally, on that same afternoon, Ingalls reported a substantial improvement in the situation.⁶⁸ But the time taken was crucial to the army's pursuit of the Confederates. It had been four days since the fighting at Gettysburg and three days since the need for large numbers of horses was first identified. These were critical days for the Army of the Potomac -- days in which their movements were severely hampered by the shortage of horses.

TRANSPORTATION

The Union army was in great need of resupply, and that could only be accomplished through the use of an efficient transportation network. The Union possessed a tremendous advantage in railroads, but during the battle itself, that advantage was of little use despite the best efforts of Herman Haupt.

On June 27th, the day before Meade replaced Hooker as commander of the Army of the Potomac, Haupt had been given authority over all railroads in Virginia, Maryland and Pennsylvania.⁶⁹ By the time the battle began in Gettysburg on July 1st, the Union railroads in that part of Maryland and Pennsylvania

⁶⁷ *Ibid.*, pt. 3, pp. 568-69.

⁶⁸ *Ibid.*, pt. 3, pp. 590-91.

⁶⁹ *Ibid.*, pt. 1, p. 24.

were in a shambles as a result of Confederate raids in the area over the preceding days.⁷⁰

Haupt was familiar with the rail network surrounding Gettysburg, having lived and worked in the town prior to the war.⁷¹ The main route from Baltimore to Gettysburg was north along the Yorktown Central line for about 35 miles to the junction with the Hanover line, then west for another 30 miles to Gettysburg. But this was not available on the 1st as many of the bridges on these lines had been destroyed by Confederate forces under Jubal Early. The route that was open was via the rundown Western Maryland line (also known as the Hampshire Railroad) northwest out of Baltimore about 30 miles to the town of Westminster. From there, supplies would have to be transferred to wagons and moved up the single road to Gettysburg, another 25 miles away.⁷²

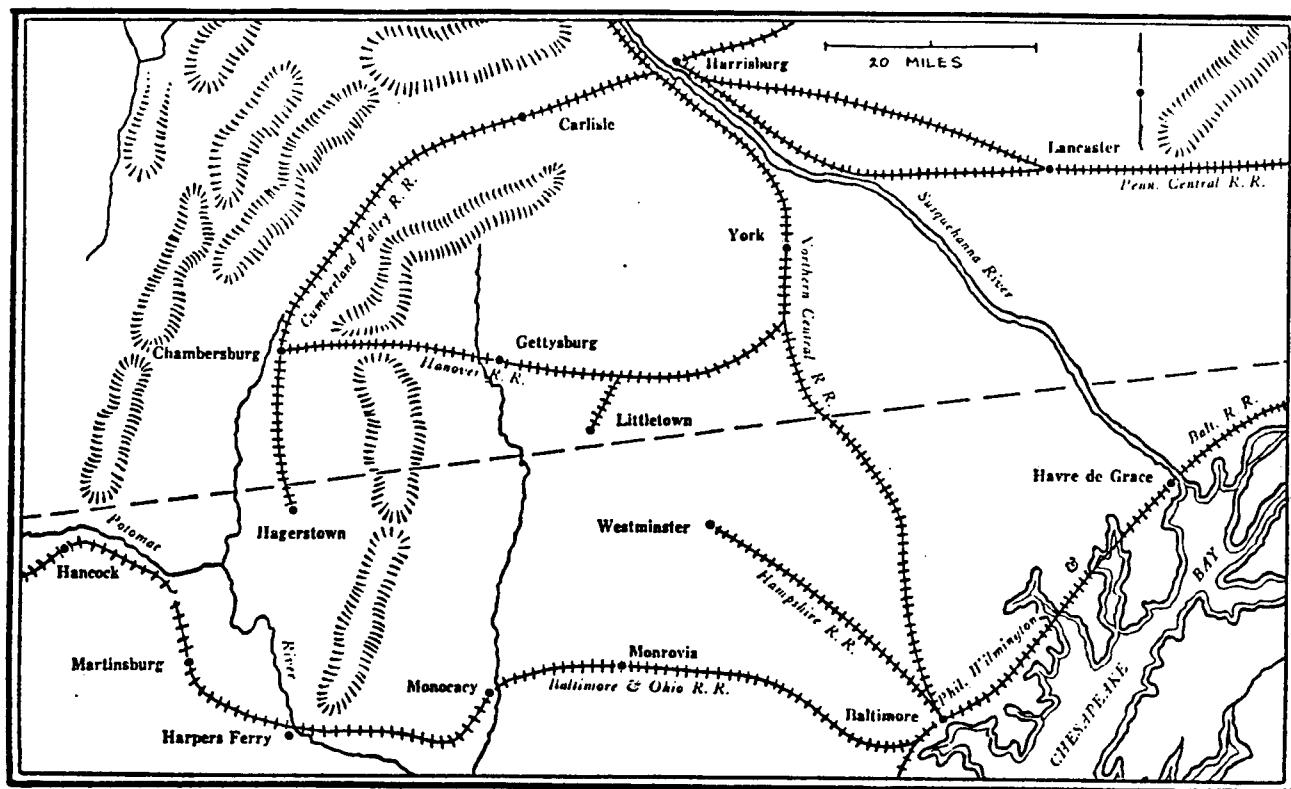
On the morning of July 1st, Haupt tackled the transportation problem from two angles. First, he developed a plan to overcome the shortcomings of the poorly equipped Western Maryland line. Trains were run five at a time north from Baltimore, offloaded at Westminster, then run backwards on the return trip (due to lack of turntables), watering at streams along the way. Second, he set crews totaling 400 construction workers to repairing the Northern

⁷⁰ George Edgar Turner, *Victory Rode the Rails* (Indianapolis, 1953), p. 276.

⁷¹ *Ibid.*, p. 278; Coddington, *The Gettysburg Campaign*, p. 545.

⁷² Turner, *Victory Rode the Rails*, p. 278.

Central and Hanover lines to open a direct route into Gettysburg.⁷³



Rail Lines Surrounding Gettysburg⁷⁴

By the 3rd, supplies were beginning to move into Westminister at the rate of 1,500 tons per day.⁷⁵ But getting supplies to Westminister still did not feed the troops in Gettysburg. And the

⁷³ OR, XXVII, pt. 1, pp. 22-23; pt. 3, pp. 521-23; Herman Haupt, *Reminiscences* (Milwaukee, 1901), p. 216.

⁷⁴ Turner, *Victory Rode the Rails*, p. 277.

⁷⁵ OR, XXVII, pt. 3, p. 523; Turner, *Victory Rode the Rails*, p. 279.

1,500 tons that arrived on the 3rd would require from 1,250 to 1,500 wagons and teams at loads of 2,000-2,400 pounds per wagon. In fact, many of the wagons were still full of supplies they had been carrying since being ordered back to Westminster on the 1st.

So the Union problem did not center on getting supplies to Westminster -- there had been plenty of supplies there ever since the 1st and the stockpile was growing with each passing hour. The problem was how to get the supplies from Westminster to the army at Gettysburg. The wagon trains were Ingalls' responsibility as chief quartermaster, and even with his capable leadership, they did not start moving until early on the 4th owing, at least in part, to the severe shortage of draft animals discussed earlier.⁷⁶

The Baltimore Pike climbs up out of Westminster, through narrow wooded lanes and then across rolling farmland, passing through the villages of Union Mills and Littlestown before finally entering Gettysburg. But on July 4th, 1863, it was anything but picturesque. The broken limestone pavement had long since been crushed to powder, creating a heavy cloud of dust that enveloped all who traveled the road.⁷⁷ Hundreds of ambulances carrying thousands of wounded were moving south out of Gettysburg. Supply and ammunition wagons by the hundreds were moving in the opposite

⁷⁶ Haupt, *Reminiscences*, pp. 216, 220-22; Coddington, *The Gettysburg Campaign*, p. 541; OR, XXVII, pt. 3, pp. 520-24.

⁷⁷ H. Seymour Hall, "At Gettysburg with the Sixth Corps," published in *The Gettysburg Papers*, compiled by Ken Brady and Florence Freeland, indexed by Margie Riddle Bearss (Dayton, 1986), p. 649; Richard Elliott Winslow, III, *General John Sedgwick: The Story of a Union Corps Commander* (Novato, CA, 1982), p. 100.

direction out of Westminster. And judging from duty rosters and field returns on the 4th, more than 15,000 uninjured men were separated from their units, many of these stragglers clogging the road from Westminster.⁷⁸

Finally, it started to rain around noon. Beginning as a typical summer shower, by afternoon the rain was coming down in torrents turning the ruts of the road from Westminster into a sea of mud and making movement almost impossible.⁷⁹ Confederate General Imboden, who was experiencing similar difficulties trying to escort Lee's ambulances west from Gettysburg, described the situation most eloquently. "Shortly after noon, on the 4th the very windows of heaven seemed to have opened. The rain fell in blinding sheets; the meadows were soon overflowed, and fences gave way before raging streams."⁸⁰ And a young soldier on the Union side of the line described the rain and the overall conditions on the 4th in the following manner:

A heavy rainstorm set in about noon, which made the roads and fields in the course of a few hours a sea of mud.

⁷⁸ OR, XXVII, pt. 1, pp. 79, 112-13, 151-53. The official number is 17,886 men that were unaccounted for within the seven infantry corps, computed as follows: p. 151 shows 95,050 present for duty on June 30 in the infantry corps; p. 153 shows 56,139 present on July 4, leaving a difference of 38,911. Of these, 21,025 were reported on p. 112 as killed, wounded or missing within the infantry corps, leaving a difference of 17,886. The number present for duty is also supported by Meade's message to Halleck (p. 79) on the morning of July 5 which states, "Field returns last evening gave me about 55,000 effective in the ranks, exclusive of cavalry, baggage guards, attendants, &c."

⁷⁹ Coddington, *The Gettysburg Campaign*, p. 540.

⁸⁰ *Battles and Leaders of the Civil War* (New York, 1884), Vol. III, p. 423.

Without tents, with hardly shelter even for the wounded, of whom there were still thousands on the reeking earth to be cared for, and amid the beating tempest that swept the whole region round about, the situation of the two armies was forlorn enough.⁸¹

This preceding passage attests not only to the ferocity of the rainstorm on the 4th, but also to the absence of shelter, lack of sufficient medical care, and overall abysmal conditions. Nonetheless, in spite of the many impediments on the road and poor weather conditions, supply wagons began reaching the army late on the 4th, continuing to trickle into the camp throughout the night.⁸²

Meanwhile, Haupt's work crews had been busy repairing the rail lines directly into Gettysburg. By 4:00 p.m. on the 4th, the line had been cleared from Baltimore north to the Hanover Junction and then west to the Littlestown spur, about twelve miles east of Gettysburg. By 11:00 p.m., it was open to Oxford, about seven miles away. Finally, on the afternoon of the 5th, work was completed into Gettysburg itself.⁸³

So the rail line to Gettysburg was finally open, but not until sometime after midday on the 5th, fully 48 hours after the fighting had ended. And even then, it was not in good working order until

⁸¹ Richard Wheeler, *Witness to Gettysburg* (New York, 1987), p. 253. Wheeler states that the passage is "assumed by Union soldier Jesse Bowman Young."

⁸² OR, XXVII, pt. 3, p. 520.

⁸³ *Ibid.*, pt. 1, p. 23; Haupt, *Reminiscences*, pp. 220-21.

well after the 6th.⁸⁴ Eventually, the rail line into Gettysburg would prove beneficial in the evacuation of wounded. But it was of little value to the resupply effort owing both to its questionable working condition and the fact that Union supplies were already stockpiled at Westminster.

Haupt had been about as successful as anyone could have hoped for in getting supplies across the dilapidated rail line into Westminster and in repairing the main line into Gettysburg. And Ingalls had also performed well in moving the wagon trains up from Westminster. But in spite of their best efforts, supplies did not begin to filter into Gettysburg until late on the 4th, and then only as fast as the wagons could move them up the single, congested roadway. By even the most optimistic estimates, it would have taken another day to bring in and distribute the huge quantities of supplies needed, meaning the army could not have been ready for another major engagement until sometime late on the 5th.⁸⁵

⁸⁴ OR, XXVII, pt. 1, pp. 198-99. Jonathan Letterman, the Medical Director for the Army of the Potomac, reported on the condition of the railroad. "I was informed by General Ingalls that the railroad to Gettysburg would be in operation on the 6th, and upon this based my action. Had such been the case, this number [of ambulances] would have been sufficient. As it proved that it was not in good running order for some time after that date, it would have been better to have left more ambulances." Later in his report, Letterman refers to "the total inadequacy of the railroad into Gettysburg to meet the demands made upon it after the battle was over."

⁸⁵ *Ibid.*, pt. 1, p. 196. The assertion that supplies did not arrive in significant quantity until the 5th is supported by Letterman's statement that tents for the wounded and most of the medical supplies arrived with the wagon trains on that day.

Unfortunately, Lee began his retreat the night before.⁸⁶

PURSUIT OF THE CONFEDERATE ARMY, JULY 5-14, 1863

In fact, the effort to resupply the army took even longer. Wagons from Westminster were slowed by the heavy rains. It was not until the afternoon of the 6th that the bulk of the Union army finally took to the soggy roads⁸⁷ and even then without many sorely needed items. Nevertheless, the army was on the move at last.

From a purely logistical standpoint, the pursuit of the Confederate army had two phases. The first was the movement phase that took the Union forces, only partially resupplied, from their encampment at Gettysburg to an area west of South Mountain and south of Hagerstown, Maryland, where they would face newly established Confederate lines. The second phase dealt with the problems of how best to overcome these new enemy defenses before the rain swollen Potomac became fordable and permitted their escape. While these two phases overlapped to some degree, the transition occurred around July 9th and 10th.

MOVEMENTS OF THE ARMY, JULY 5-9, 1863

It could well be that Meade's best chance for destroying Lee's army, if he ever really had one, was during the movement phase. On the 4th, he had chosen not to attack the entrenched Confederates on Seminary Ridge, a sound decision that denied them of the

⁸⁶ *Ibid.*, pt. 2, p. 322.

⁸⁷ Cleaves, *Meade of Gettysburg*, p. 175.

opportunity of playing "their old game of shooting us from behind breastworks."⁸⁸ By the time he reestablished his lines south of Hagerstown on the 10th and 11th, he was again facing a well-fortified enemy line on high ground.⁸⁹

But during those five intervening days, Lee's battered army was on the move and vulnerable to attack. The fact that Lee was able to reach Williamsport and reestablish his lines around the bend in the river at Falling Waters is the result of several factors. This paper will only seek to examine the extent to which logistics played a part in the eventual outcome.

The actual pursuit of the Confederate army began with Meade's directions to Sedgwick's VI Corps to make a reconnaissance of the enemy position on the 5th. By using an entire corps, Meade was signalling his intent that this was indeed the first movement in the pursuit rather than just a mere reconnaissance.⁹⁰ It is the availability of VI Corps that Meade's critics often point to as proof that he was not sufficiently aggressive in his pursuit of Lee. VI Corps is often portrayed as being well-rested and well-equipped since most of the corps was not heavily involved in the fighting. With such a robust fighting force at his disposal, they argue, Meade should have been able to engage and defeat Lee in the

⁸⁸ George Meade, *The Life and Letters of George Gordon Meade* (New York, 1913), pp. 122-23, reprinted in *The U.S. Army War College Guide to the Battle of Gettysburg*, edited by Jay Luvaas and Harold W. Nelson (Carlisle, PA, 1986), p. 195.

⁸⁹ Catton, *Glory Road*, p. 328.

⁹⁰ Coddington, *The Gettysburg Campaign*, p. 549.

days immediately following the battle.⁹¹

In fact, VI Corps was anything but well-rested and well-equipped by the time they reached Gettysburg. Although they did not suffer the horrendous casualties of the other six army corps at the battle, their supply situation was not much better than the rest of the army. VI Corps arrived in Gettysburg on the afternoon and evening of July 2nd, having marched 32-35 miles in about 18 hours.⁹² Further, the days leading up to this notable achievement had been spent in long marches of about 20 miles a day with the troops sleeping on the ground at night without benefit of tents.⁹³ In short, the corps was exhausted as the accounts of many its members bear out.⁹⁴

Like the rest of the army, VI Corps' movement to Gettysburg was accomplished without their baggage trains, each man carrying 60

⁹¹ See for example Edward J. Stackpole, *They Met at Gettysburg* (Harrisburg, 1956), pp. 65, 306-320; James A. McPherson, *Battle Cry of Freedom* (New York, 1988), pp. 663-67.

⁹² OR, XXVII, pt. 1, pp. 665, 684; CCW Report, p. 460.

⁹³ Elisha Hunt Rhodes, *All for the Union: The Civil War Diary and Letters of Elisha Hunt Rhodes*, edited by Robert Hunt Rhodes (New York, 1985), p. 106; Wilbur Fisk, *Hard Marching Every Day: The Civil War Letters of Private Wilbur Fisk*, edited by Emil and Ruth Rosenblatt (Lawrence, KS, 1983), pp. 112-13.

⁹⁴ Winslow, *General John Sedgwick: The Story of a Union Corps Commander*, pp. 99-101; OR, XXVII, pt. 1, p. 72. Meade noted in a message to Halleck at 3 p.m. that "The Sixth Corps is just coming in, very much worn out, having been marching since 9 p.m. last night." For first hand accounts of VI Corps' march to Gettysburg, see also Rosenblatt (eds.), *Hard Marching Every Day*, p. 114; Bandy (ed.), *The Gettysburg Papers*, pp. 637-44, 648-650; Rhodes, *All For the Union*, pp. 106-8; OR, XXVII, pt. 1, pp. 665, 684.

rounds of ammunition and three days' rations in his haversack.⁹⁵ By the time the battle ended on the 3rd, they were suffering from the same shortages of rations and shoes as the rest of the army. Nevertheless, as the largest corps in the army, they were the logical choice to directly pursue Lee which they undertook on the morning of the 5th.⁹⁶

But by then, Lee had already been on the move for several hours. Sedgwick pursued Lee's force as far as Fairfield, a distance of about eight miles, where he engaged Lee's rear guard and captured about 250 prisoners.⁹⁷ But the ability of the rest of the army to support Sedgwick was limited due, in part, to concurrent problems with resupply. In the end, there was no general engagement and VI Corps was recalled to join the rest of the army.⁹⁸

In reality, Meade had only one small chance of blocking Lee's escape through the Fairfield and Cashtown passes and that chance rested upon the ability of Union forces to seize and hold the passes. If he could take and hold even one, then Lee would have to move his entire army through the remaining pass -- an undesirable proposition for the Confederates since their movements would be slowed considerably. By stacking the enemy forces up at the mountain passes, Meade might be able to engage and defeat the

⁹⁵ Bandy (ed.), *The Gettysburg Papers*, pp. 648-49.

⁹⁶ *CCW Report*. p. 460.

⁹⁷ *Ibid.*, p. 460; *OR*, XXVII, pt. 1, p. 663.

⁹⁸ *CCW Report*, p. 460.

strung out Confederates in detail. For reasons owing partly to poor supply, that slim chance would be lost.

That chance rested on a force of about 9,000 militia which had been at Carlisle since July 1st under the command of General W.F. "Baldy" Smith.⁹⁹ Smith's immediate superior was General Darius N. Couch who commanded the military department in Pennsylvania. Couch wanted to dispatch these troops at midnight on the 3rd to seize and hold the pass at Cashtown.¹⁰⁰ That notion was quickly put to rest by Smith who did not have much confidence in the fighting ability of the militia under his command.

But there was a logistical factor that entered into Smith's assessment as well -- his ammunition supply had not arrived and he was unsure of the ability of his ordnance officer to get it to the troops as needed.¹⁰¹ Smith's force finally did move on the morning of the 4th and managed to cover half the distance to Cashtown by evening. But by the time he finally reached the Cashtown area, the Confederate trains had already passed through.¹⁰²

It is a matter of pure conjecture as to whether the troops under Smith could have reached the Cashtown Gap in time to seize the pass if their ammunition supply had been provided on time. It is a matter of further conjecture as to how well they would have done against advance elements of the Confederate army or how the

⁹⁹ Coddington, *The Gettysburg Campaign*, p. 542.

¹⁰⁰ *OR*, XXVII, pt. 3, p. 502.

¹⁰¹ *Ibid.*, pt. 3, p. 507.

¹⁰² *Ibid.*, pt. 2, p. 222.

loss of this pass might have affected Lee's movements since most of his force retreated through Fairfield. Nonetheless, it was a chance to slow Lee's movement -- a chance that was missed in part for lack of ammunition.

When the rest of the Union corps finally began to move on the 6th and 7th, they moved fast despite the rains and poor road conditions, once again moving without most of their trains.¹⁰³ By then, it was clear to Meade that Lee was crossing South Mountain through the Fairfield Gap in an effort to get across the Potomac. Meade chose to move on the east side of South Mountain toward Middletown, Maryland, and South Mountain Pass. This route stemmed at least in part from Halleck's orders to continue to cover Washington and Baltimore and would require the Army of the Potomac to cover about twice the distance of Lee's army.¹⁰⁴

On the 7th, some units set new records for distance with XII Corps covering 29 miles and elements of XI Corps exceeding 30 miles despite poor road conditions. Meade moved his headquarters all the way from Gettysburg to Frederick, some 33 miles to the southwest.¹⁰⁵ But there the drive slowed dramatically.

Heavy rains again on the 7th turned many of the already muddy roads into virtual quagmires. Artillery pieces and wagons became hopelessly stuck in the mud. Some infantry units moved ahead

¹⁰³ Espanet, *Notes on Supply*, p. 217.

¹⁰⁴ OR, XXVII, pt. 1, pp. 79-80; A.A. Humphreys, *Gettysburg to the Rapidan* (New York, 1883), p. 5.

¹⁰⁵ Coddington, *The Gettysburg Campaign*, p. 555.

without their artillery. The few remaining horses were exhausted by the effort of getting the wagons and artillery over the roads and across South Mountain with many of them falling along the roadside.¹⁰⁶

Footwear had been a problem all during the campaign and was now becoming critical for an army trying to move great distances in such a short time. General Slocum, commander of XII Corps, reported on the 7th that many of his men were still "destitute of shoes."¹⁰⁷ On the 8th, Ingalls wired Washington that the army needed boots "fearfully,"¹⁰⁸ and Meade, in a dispatch to Halleck at 2 p.m., noted that "a large portion of the men are barefooted." He followed that an hour later with another message that stated, "My army has been making forced marches, short of rations, and barefooted."¹⁰⁹ General Howard of XI Corps reported that half his command could not march any further without boots.¹¹⁰ These assessments were echoed by one of Howard's regimental commanders. "Toward night the rain descended in torrents, amid which men and beasts sank down, tired to death, most of the soldiers without any shoes, barefooted, or shoes so ragged or torn that they did not deserve the name."¹¹¹

¹⁰⁶ OR, XXVII, pt. 1, p. 86.

¹⁰⁷ *Ibid.*, pt. 1, p. 761.

¹⁰⁸ *Ibid.*, pt. 3, p. 608.

¹⁰⁹ *Ibid.*, pt. 1, pp. 84-85.

¹¹⁰ *Ibid.*, pt. 3, p. 601.

¹¹¹ *Ibid.*, pt. 1, p. 736.

These shortages indicate one other thing -- that the resupply effort at Gettysburg on the 4th and 5th was not as successful as some of Haupt's and Ingalls' dispatches would seem to indicate. After all, it was their job to get supplies to the army. But if they had been completely successful, then how could there be, by Ingalls' own admission, such a "fearful" shortage just three days later. Civil War boots wore out fast, but not that fast.

The good news for the Federal army was that the nearby town of Frederick offered excellent transportation facilities. The B&O Railroad ran directly into Frederick, and the town was also connected with Baltimore and Washington by major turnpikes. In fact, it would seem that the opportunity to use Frederick as a supply base contributed to Meade's decision to pursue Lee on his left flank east of South Mountain rather than directly over the passes.¹¹²

But good facilities do not always ensure effective resupply, and such was the case at Frederick. General Ingalls arrived at Frederick around noon on the 7th to take charge of logistics operations there. By the time he arrived, rail traffic had come almost to a standstill. It seems that Major General William H. French, appointed that same day to command III Corps,¹¹³ had tied up the trains for several hours while he sorted out problems with some of his ill-equipped reinforcements on their way from Baltimore to Harpers Ferry. Instead of off-loading the troops and sending the

¹¹² Coddington, *The Gettysburg Campaign*, p. 556.

¹¹³ OR, XXVII, pt. 1, p. 488.

trains back to Baltimore, he kept them waiting for several hours at Monocacy Junction, just south of Frederick. In the process, he not only tied up ten trains, but also brought traffic on the main B&O line to a halt.¹¹⁴

It took Ingalls and the arrival of Haupt on the next day to straighten out the mess, but the damage had been done. The army arrived in and around Frederick on the 8th and many of the needed supplies were not available as they should have been. On that same day, Ingalls wired Washington to cease all shipments of horses by rail until the army could be resupplied with clothing, rations, forage and much-needed boots (testifying to the fact that 25,000 pairs shipped from Washington on the 6th had not yet arrived).¹¹⁵ In fact, it appears that the railroad scheduling difficulties were not solved until the 9th.¹¹⁶

ENCIRCLEMENT AND ESCAPE, JULY 9-14, 1863

By the 9th, the army was being resupplied, albeit slowly, and establishing its lines on the west side of South Mountain as a prelude to the final advance. Lee's forces were located in the area between Hagerstown and Williamsport, preparing for the probable assault against their lines. The Union army advanced

¹¹⁴ *Ibid.*, pt. 3, pp. 591-92, 608-9; Coddington, *The Gettysburg Campaign*, p. 557.

¹¹⁵ *OR*, XXVII, pt. 3, pp. 569, 608.

¹¹⁶ *Ibid.*, pt. 3, pp. 591-93, 608-9, 625-26; Haupt, *Reminiscences*, pp. 238-39; Coddington, *The Gettysburg Campaign*, pp. 556-57, 815.

slowly, forcing Lee to abandon Hagerstown on the 12th.¹¹⁷ The stage was set for what Meade hoped would be "the decisive battle of the war."¹¹⁸ It was not to be.

The logistical difficulties encountered by Meade's forces up to that point had given Lee time to prepare a formidable defensive line. At the same time, there were added problems in bringing supplies up from Frederick over South Mountain to the front lines. As the advance moved west, these problems became greater. The occupation of Hagerstown by the Union army on the 12th did nothing to help the situation -- the railroad line from Harrisburg to Hagerstown had not yet been repaired so the field depot at Frederick remained the chief source of resupply.¹¹⁹

Scattered units were still without many needed items. On the night of the 12th, 7,000 militia under "Baldy" Smith stumbled into Hagerstown -- the same troops that had left Carlisle on the 4th. They had moved the entire distance without a baggage train, quartermaster or commissary. Some regiments did not even have haversacks to issue.¹²⁰

But the advance would have proceeded slowly even with perfect logistics support. In the end, the final assault never came, owing

¹¹⁷ OR, XXVII, pt. 1, pp. 88-91.

¹¹⁸ *Ibid.*, pt. 1, p. 86.

¹¹⁹ *Ibid.*, pt. 3, p. 678; Coddington, *The Gettysburg Campaign*, pp. 564-65.

¹²⁰ OR, XXVII, pt. 2, p. 222.

chiefly to Lee's strong defensive position at Falling Waters.¹²¹ The Army of Northern Virginia crossed the Potomac on the night of July 13-14. The Union army pursued but, in the end, was not able to bring on the decisive engagement that might have ended the war in 1863.

CONCLUSIONS

Conventional wisdom holds that, in the days after Gettysburg, Meade was presented with a golden opportunity to destroy the Confederate army and end the war. Over the years, a number of reasons for this apparent failure have been analyzed in depth. These include but are not limited to the casualties suffered by the Union army as a whole; the loss of key Union leaders such as Reynolds, Hancock, Sickles and Gibbon, to name a few; the strength of the Confederate defensive position; the military genius of Lee in effecting his escape; and, most commonly, Meade's own shortcomings as a commander. Indeed, some of these may have contributed to the eventual outcome. Some may have even been decisive in their own right. But logistical factors are often ignored completely and rarely if ever viewed as decisive in and of themselves, which in this case, they were.

The commonly held view that the Union had adequate logistic support stems, in part, from the fact that the men charged with this support -- Haupt, Meigs, Ingalls and others -- enjoy such

¹²¹ CCW Report, p. 336; Humphreys, *Gettysburg to the Rapidan*, p. 7; Coddington, *The Gettysburg Campaign*, pp. 567-68.

exceptional reputations. Leaders of their ability could not possibly be faulted. If such is the case, then logistics could not have been a problem, and so the blame must be laid elsewhere, usually at the feet of George Gordon Meade.

It is true that Union logistics support in 1863 had evolved into an effective and relatively efficient system due to the efforts of these individuals. But no matter how effective each was in his respective discipline, they were handed an impossible task at Gettysburg. It was simply one of those situations where they could do everything right and still not achieve the desired outcome in sufficient time. Circumstances would not allow it.

Haupt was a true genius in the railroad industry who restored rail traffic into Gettysburg in short order. But little of what he accomplished in this endeavor had much effect on events immediately after the battle. He did manage to get supplies to Westminster, but there were large stockpiles already there that still had to be moved overland some 25 miles to the army. Movements during the Gettysburg Campaign were accomplished largely by road, not rail.

Likewise, Ingalls did all he could to get the wagon trains moving, but he was hampered by the single roadway and a severe shortage of draft animals that had been drawn off to fill acute needs in the artillery and cavalry. So too with Meigs, who was able to obtain thousands of horses in short order. But most of those horses had to be transported hundreds of miles and that took days to accomplish.

On the 4th of July, the Union leaders had an army that was not

capable of mounting a decisive engagement until it had been adequately resupplied. The troops were extremely short of ammunition, artillery, shoes, rations, horses, shelter and all types of equipment that they had left behind when they went into battle on the 1st. Many of these supplies were located at Westminster, but that was 25 miles away and accessible by a single overused road clogged by ambulances moving in the opposite direction. Transportation difficulties were further complicated by a severe shortage of draft animals.

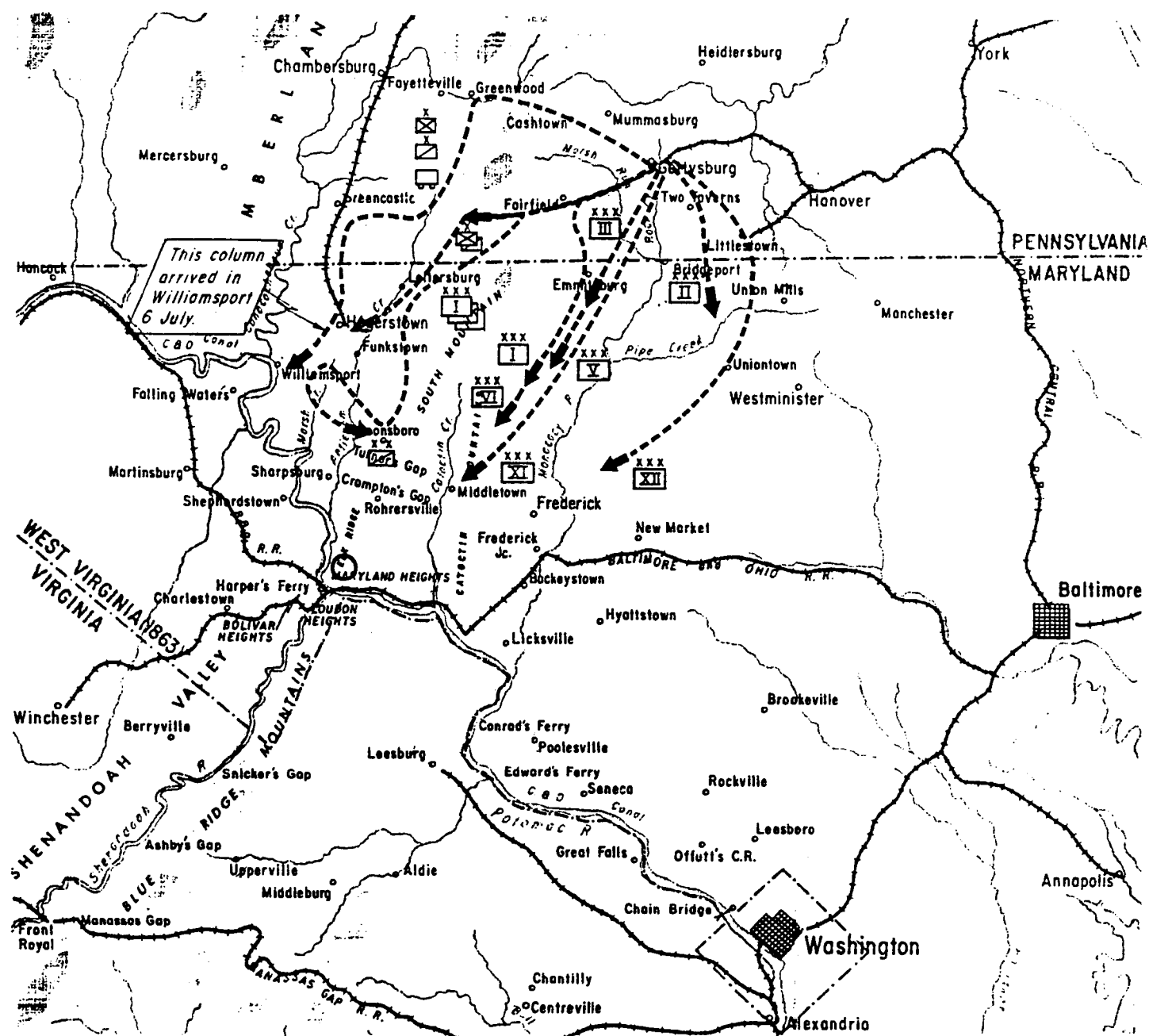
It is true that Lee faced some of these same problems. But Lee had his trains with him while Meade's were 25 miles in his rear. In his retreat, Lee was falling back on his supply lines while Meade was moving away from his base of supply.¹²² So too, in following his orders to cover Washington and Baltimore, Meade was compelled to cover about twice as much distance as Lee, further depleting already limited stocks of supplies and animals.¹²³ Finally, Meade was attempting to mount an offensive campaign. As such, it is reasonable that he would want to enter such a campaign with a well-supplied army less he throw away the victory he had just won. Troops that were poorly fed, poorly armed, tired and barefoot were not likely to be able to carry a strong enemy position such as Lee enjoyed. Lee, on the other hand, was by the 4th, conducting purely a defensive effort which could be undertaken

¹²² Cleaves, *Meade of Gettysburg*, p. 174.

¹²³ OR, XXVII, pt. 1, pp. 61, 80; Humphreys, *Gettysburg to the Rapidan*, p. 5.

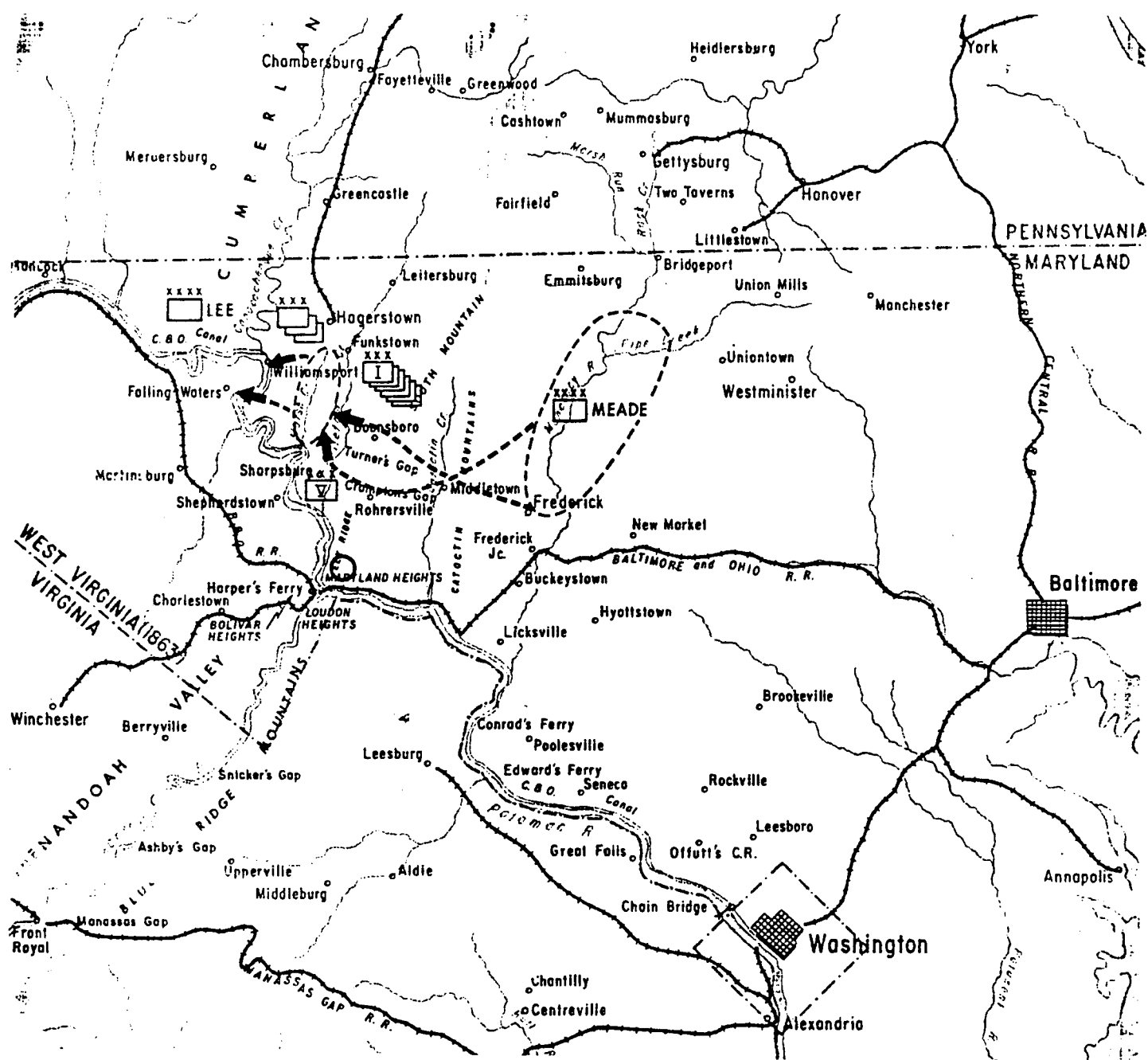
with greater shortages.

Perhaps Meade made some significant mistakes in the days after the battle. Critics often charge that a "great captain" like Grant would have found a way to destroy Lee's army. But these charges ignore key limitations on the Union commander in the days after the battle not the least of which were severe shortages of equipment, rations, horses, ammunition, and the like. In fact, the Union resource support posture was bad enough that victory could not be achieved under the circumstances. In the ten days following the Union victory at Gettysburg, logistics was a decisive factor in permitting the Confederate retreat, thereby ensuring that the war would continue.



Troop Movements, July 4-7, 1863¹²³

¹²³ Thomas J. Griess (ed.), *Atlas for the American Civil War* (Wayne, NJ, 1986), map 38a.



Troop Movements, July 7-13, 1863¹²⁴

¹²⁴ Ibid., map 38b.

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